CLAIMS

What is claimed is:

1. A method of authenticating optical storage media comprising:
reading a first set of data from a locus on an optical storage medium; and
re-reading a second set of data from the locus, wherein the second set of data is different from the first set of data.

2. The method of claim 1 wherein sampling the locus comprises sampling a data bit.

3. The method of claim 1 wherein sampling the locus comprises sampling a data byte.

4. The method of claim 1 wherein sampling the locus comprises sampling a data frame.

5. The method of claim 1 wherein sampling the locus comprises sampling a data block.

6. The method of claim 1 wherein sampling the locus comprises sampling a data sector.

7. The method of claim 1 further comprising re-reading a second locus.

8. The method of claim 1 wherein reading the first set of data produces a signal that is inadequate to provide for an intended use of the data stored on the medium.

9. The method of claim 8 wherein detecting the second set of data produces a signal that is adequate to provide for an intended use of the data stored on the medium.

10. The method of claim 1 wherein detecting the second set of data comprises reading at least a portion of a file allocation statement.

11. The method of claim 1 wherein re-reading the locus occurs within about one second of sampling.

12. The method of claim 11 wherein re-reading the locus occurs within about ten milliseconds of sampling.

13. The method of claim 12 wherein re-reading the locus occurs within about one millisecond of sampling.

14. The method of claim 1 further comprising providing the optical storage medium with a light-sensitive compound.

15. The method of claim 14 wherein reading the second set of comprises reading a signal from the light-sensitive compound.

16. The method of claim 14 further comprising providing light-sensitive compound in the optical path of the locus and an optical detector.

17. The method of claim 14 wherein the light-sensitive compound has an emission wavelength at a wavelength detectable by an optical reader.

18. The method of claim 14 wherein the light-sensitive compound absorbs light that, in the absence of the light-sensitive compound, would be detected by a reader.

19. The method of claim 17 wherein a light emission from the compound provides at least a portion of the second data set.

20. The method of claim 17 wherein the light-sensitive compound is excitable by light emitted by the optical reader.

21. The method of claim 14 wherein the light-sensitive compound has an emission wavelength from about 770 nm to about 830 nm.

22. The method of claim 21 wherein the light-sensitive compound has an emission wavelength of about 780 nm.

23. The method of claim 14 wherein the light-sensitive compound has an emission wavelength from about 630 nm to about 650 nm.

24. The method of claim 14 wherein the light-sensitive compound has an emission wavelength of about 530 nm.

25. The method of claim 14 wherein the light-sensitive compound has an emission wavelength in the near infrared range.

26. The method of claim 14 wherein the compound is luminescent.

27. The method of claim 14 wherein the compound is phosphorescent.

28. The method of claim 19 wherein the compound is excitable at a wavelength of about 780 nm or about 530 nm.

29. The method of claim 14 wherein the compound has an emission wavelength of about 780 nm, or about 530 nm, or both.

30. The method of claim 14 wherein the compound has an emission wavelength of about 530 nm.

31. The method of claim 14 wherein the compound has emission wavelengths of about 780 nm and about 530 nm.

32. The method of claim 1 wherein the optical recording medium is selected from the group consisting of CD, CD-Audio, CD-ROM, CD-G, CD-i, CD-MO, CD-R, CD-RW, DVD, DVD-5, DVD-9, DVD-10, DVD-18 and DVD-ROM.

33. The method of claim 1 wherein the optical recording medium is a CD.

34. The method of claim 1 wherein the optical recording medium is a CD-ROM.

35. The method of claim 1 wherein the optical recording medium is a DVD.

36. The method of claim 14 wherein the dye is a cyanine compound.

37. The method of claim 14 wherein the compound is selected from the group consisting of indodicarbocyanines, benzindodicarbocyanines and hybrids thereof.

38. The method of claim 14 wherein the compound is an indodicarbocyanine.

39. The method of claim 14 wherein the compound is an benzindodicarbocyanine.

40. The method of claim 14 wherein the compound is a hybrid of an indodicarbocyanine and a benzindodicarbocyanine.

41. An optical disk comprising:

a substrate;

a data track disposed on the substrate; and

a light-sensitive compound disposed on at least a portion of the disk and cooperating with the data track to alter the data upon excitation with a suitable stimulus.

42. The disk of claim 41 wherein the data track is injection molded.

43. The disk of claim 41 wherein the data track is formed via a recording dye.

44. The disk of claim 41 wherein at least a portion of the light-sensitive compound is active.

46. The disk of claim 45 wherein at least a portion of the light-sensitive compound is phosphorescent.

47. The disk of claim 45 wherein at least a portion of the light-sensitive compound is fluorescent.

49. The disk of claim 41 wherein at least a portion of the light-sensitive compound is excitable by a light source emitting light at a wavelength between about 770 and about 830 nm.

50. The disk of claim 44 wherein at least a portion of the light-sensitive compound is excitable by a light source emitting light at a wavelength between about 630 and about 650 nm.

51. The disk of claim 41 wherein the light-sensitive compound is excitable by a light source emitting light at a wavelength between about 780 nm and by a light source emitting at about 530 nm.

52. The disk of claim 41 wherein at least a portion of the light-sensitive compound is adapted to emit at 780 nm.

53. The disk of claim 41 wherein at least a portion of the light-sensitive compound is adapted to emit at 530 nm.

54. The disk of claim 41 wherein at least a portion of the light-sensitive compound is adapted to emit at both about 780 nm and about 530 nm.

55. The disk of claim 41 wherein the light-sensitive compound comprises a cyanine compound.

56. The disk of claim 41 wherein the light-sensitive compound comprises indodicarbocyanines.

57. The disk of claim 41 wherein the light-sensitive compound is benzindodicarbocyanines.

58. The disk of claim 41 wherein the light-sensitive compound is a hybrid of indodicarbocyanines and benzindodicarbocyanines.

59. The disk of claim 41 wherein a portion of the light-sensitive compound is adapted to be selectively activated.

60. The disk of claim 59 wherein the light-sensitive compound is activated by crosslinking.

61. The disk of claim 59 wherein the light-sensitive compound is activated by laser catalysis.

62. The disk of claim 59 wherein the light-sensitive compound is activated to provide at least a portion of a file allocation statement upon re-reading.

63. The disk of claim 41 wherein the data track includes instructions to re-read a locus on the disk.

64. The disk of claim 63 wherein activated light-sensitive compound is disposed over at least a portion of the locus.

65. The disk of claim 64 wherein the activated light-sensitive compound is a delayed luminescent or phosphorescent dye.

66. The disk of claim 65 wherein the activated light-sensitive compound is interpretable by a reader to provide a response different from that provided by the data track.

67. The disk of claim 63 wherein the data track includes instructions to discontinue reading the data track if the reading upon re-reading is identical to an initial reading.

68. The disk of claim 63 wherein the data track includes instructions to continue accessing the data on the disk if the data detected upon re-reading is different from the initially-read data.

70. The disk of claim 41 wherein the light-sensitive compound is less than about 120 nm in thickness.

71. The disk of claim 70 wherein the light-sensitive compound is less than about 10 nm in thickness.

72. The disk of claim 71 wherein the light-sensitive compound is less than about 1 nm in thickness.

69. The disk of claim 41 wherein the light-sensitive compound is disposed on the disk by spin coating.

73. A method of treating an optical storage medium comprising:
recording data on an optical storage medium;
applying a light-sensitive compound to the optical storage medium; and
selectively activating at least a portion of the light-sensitive compound.

74. The method of claim 73 wherein the light-sensitive compound is activated by crosslinking.

75. The method of claim 74 wherein the light-sensitive compound is crosslinked by laser activation.

76. An optical recording medium comprising:
stored data; and
means for altering, upon re-reading, data read from a locus on the medium.

77. The optical recording medium of claim 76 wherein the data read from the locus on the medium is temporarily altered upon re-reading.

78. An optical recording medium comprising a data track including readable data, wherein at least a portion of an output of the data track is predictably altered upon re-reading.

79. The recording medium of claim 78 wherein the output is temporarily altered upon re-reading.

80. The optical recording medium of claim 78 wherein the medium comprises a CD.

81. The optical recording medium of claim 78 wherein the medium comprises a DVD.

82. The optical recording medium of claim 78 further comprising a light sensitive light-sensitive compound.

83. A method of authenticating an optical storage medium, the medium having a first plane including data and a second plane having a light-sensitive compound, the method comprising:
reading data from the first plane on an optical medium;

exciting the light-sensitive compound in a second plane on the optical medium; and

reading data from the second plane of the optical medium.

84. The method of claim 80 comprising instructing a reader to alter a focal length of a laser.

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